

ABSTRACT

A support structure for use with a semiconductor substrate in thinning, or backgrinding, thereof, as well as during post-thinning processing of the semiconductor substrate includes a portion which extends substantially along and around an outer periphery of the semiconductor substrate to impart the thinned semiconductor substrate with rigidity. The support structure may be configured as a ring or as a member which substantially covers an active surface of the semiconductor substrate and forms a protective structure over each semiconductor device carried by the active surface. Assemblies that include the support structure and a semiconductor substrate are also within the scope of the present invention, as are methods for forming the support structures and thinning and post-thinning processes that include use of the support structures.